CLAIMS

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A cytometer apparatus comprising:

a vertical rotating means adapted to receive and vertically rotate a transparent cylinder, a light source and detector adapted to interrogate the wall of said vertically rotating transparent cylinder, and said vertically rotating transparent cylinder or light source and detector moved vertically to interrogate the wall of said vertically rotating transparent cylinder.

2. The transparent rotating cylinder as set forth in claim 1 having a bare code label affixed to its outer wall, said bar code label vertically aligned, and said bar code label interrogated by said light source and detector.

3. The transparent rotating cylinder as set forth in claim 1 having calibration standards affixed to its inner wall, and said affixed standards interrogated by said light source and detector.

- 4. The transparent rotating cylinder as set forth in claim 1 having a photoactivated cross-linker on its inner wall.
- 5. A cell guide for the centrifugal dispersion of cells comprising: a cell guide member inside a vertically rotating transparent cylinder, said cylinder having a closed end and an open end, said cell guide member having a passage through its annular axis, said passage being narrower at one end, and said narrow end disposed facing the cylinder opening.
- 6. A diagnostic method comprising:
 disposing treated organic matter in a transparent cylinder,
 said transparent cylinder vertically rotated through an interrogating light source and detector,
 said detector detecting signals from said treated organic matter, and
 said signal being diagnostic.
- 7. A method for sorting cells comprising disposing treated cells in a transparent cylinder, said cylinder having a photoactivated cross-linker disposed to its inner wall, said transparent cylinder vertically rotated through a light source and detector, said detector detecting a signal from said treated cells, said signal achieving a threshold and activating a light source, and
 - said activating light source activating said photoactivated cross-linker and linking said treated cells to said cylinder.
- 8. The subpopulation of cells selected from a larger population of cells by the method of claim 7 wherein said subpopulation was not linked to said cylinder wall.
- 9. The subpopulation of cells selected from a larger population of cells by the method of claim 7 wherein said subpopulation was linked to said cylinder wall.

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